

TESTIMONY OF
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NATIONAL MARINE FISHERIES SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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Good morning. My name is Rebecca Lent and I am the Deputy Assistant Administrator for Regulatory Programs for NOAA Fisheries. Thank you for the opportunity to appear before you today. I am pleased to be able to share with you some of the programs that we in the National Marine Fisheries Service (NMFS) are working on in collaboration with the fishing industry as well as with others interested and concerned with the future of our living marine resources.

Despite headlines that may make it appear that the Federal government and the fishing industry are often at odds, there are a number of areas where scientists, fishing people, commercial vendors, and a host of others are working together to gather information about fisheries, to survey fishing grounds, and to strengthen the scientific basis for managing our Nation's living marine resources. The National Marine Fisheries Service has a long history of scientific collaboration and is actively pursuing cooperative and collaborative research in all regions of the country. In the Northeast, scientists and managers are working to develop the mechanisms required and the close collaborative relationship with industry and other constituents needed to identify and fund cooperative research. This morning you will be hearing much more about the New England programs. Dr. Michael Sissenwine, Director of the NMFS Northeast Fisheries Science Center, will provide an overview of the work ongoing in the Northeast, and Dr. Anne Richards, Project Leader for the Monkfish Cooperative Survey, will share her experiences in developing a collaborative survey program with industry.

In my testimony, I will highlight some of NMFS' long standing cooperative research efforts as well as outline some new projects under development under the newly funded National Cooperative Research Program. I also will address some of the key elements of a successful and scientifically valid cooperative research program, and touch on some of the challenges we are working to resolve on the road to effective working relations with industry.

History of Cooperative Research

Since the days of the Bureau of Commercial Fisheries, and more actively over the last decade, NMFS has

worked with commercial and recreational industry representatives, academic researchers, commercial vendors and environmental groups on a variety of approaches for involving stakeholders in the collection of data for the purpose of improving fisheries management. These efforts have been developed in response to local needs and circumstances and have been undertaken in virtually every NMFS region across the country. We have learned some lessons and we continue to search for improvements in performance.

We know that involving the fishing community in data collection requires cooperation among parties with different interests and, often, a history of past conflicts. One of the primary objectives of entering into cooperative or collaborative research and data collection projects, however, is not only to obtain accurate data but also to gain the investment and trust of all participants - scientists, managers, and harvesters of the resource - and to build upon that foundation.

We have learned that the variations across fisheries make it difficult to apply standardized approaches across all regions and fisheries. We also have learned that improving data gathering capability requires some or all of the following elements:

- 1) consistent outreach to industry and other interested constituents;
- 2) careful development of valid technical and scientific protocols; and
- 3) the testing and refinement of these lessons in well-designed pilot studies.

National Cooperative Research Program

Funding specifically identified for cooperative research within the National Marine Fisheries Service first appeared when Congress allocated money for the Northeast in FY1999 as part of Disaster Relief money to assist in efforts to involve fishing communities in both the planning and conduct of research. To aid in the development of a program for cooperation, the Northeast Regional Fisheries Office established an Office of Cooperative Programs Coordination. At the same time, the New England Fishery Management Council established a "Research Steering Committee" consisting of fishing community representatives, scientists, Council members and government officials to set priorities and plan for long-term cooperative research efforts. More on the background of the Northeast's Cooperative Research Program will be presented later.

Beginning in FY2001, NMFS also received specially designated funding for a National Cooperative Research Program. The program is being developed to continue to expand and refine cooperative and collaborative research programs with NMFS constituents to improve data collection and analysis, fishing methods and gear technology, while building improved working relations with fishing communities. The FY 2002 appropriations provides \$16.7 million specifically for cooperative research programs, of which \$2.75 is for the National Cooperative Research Program to continue these activities. This significant commitment of funding by the Congress further highlights the importance of this research.

To illustrate our cooperative research program, and to showcase some of the work done by NMFS scientists in concert with the fishing community, I would like to walk you through some of our outstanding projects.

Recent and Ongoing Examples of Cooperative Research Programs

On the West Coast, we have had programs that use commercial fishing vessels for data collection for many years. In Alaska, for example, annual resource assessment surveys use chartered commercial fishing vessels,

fishing companies test fishing gear for both commercial and Federal work, and government scientists participate in industry-funded research. We are also developing a new program thrust focused on developing a coast-wide grants program that will be available for constituent identified research, information sharing, and gear improvement.

To cite some specific and long standing work, I would like to highlight efforts that the Alaska Fisheries Science Center (AFSC) has undertaken in recent years. Participation of commercial fishing vessels in the Center's annual resource survey effort has long been a keystone to annual groundfish stock assessments for Alaska fisheries. Most recently, the industry is involved in identifying and participating in both sablefish and pollock research projects.

Fish Surveys - Sablefish Survey

The sablefish survey is an annual survey developed at the urging of the Alaska longline fleet. NMFS has been conducting the survey for a number of years and fishing vessel owners, captains, and crew have worked with NMFS scientists to design the gear and on deck sampling procedures. The vessel captains have played a critical role in improving the surveys. NMFS charters the vessel but the vessel captain and crew are allowed to retain the catch. The data are used in preparing annual stock assessments and are used to allocate catch geographically. The sablefish effort also involves transcribing the voluntary logbook data submitted by the Alaska Longline Fishermen's Association, and the Petersburg Vessel Owner's Association into a computerized database and aging the sablefish otoliths collected from fishermen by the International Pacific Halibut Commission.

Pollock Survey

For pollock, the At-Sea Processors Association and the Pollock Conservation Cooperative initiated an acoustic data collection project for pollock using the fleet's echosounders. They funded a collaborative project with scientists from academia (University of Alaska), industry, and the NMFS Alaska Fisheries Science Center. NMFS funding is supporting the purchase of acoustic recording equipment which is designed to be interfaced with ship board echosounders. The collaborative team will be responsible for analyzing the data and evaluating the utility of the data collection system (for pollock stock assessment and pollock distribution).

Bycatch research is another ongoing cooperative research effort in Alaska. One shining example is the work of Alaska Fisheries Science Center scientists and industry on the halibut excluder device for the cod fishery.

Halibut Bycatch Reduction Research

While halibut bycatch in the flatfish and cod fishery is not a species-depletion problem, it does draw sharp criticism because it reduces the quota available to the halibut longline fleet. Collaboration among the Groundfish Forum, Alaska Draggers Association, At-Sea Processors Association, and a number of the local commercial net builders has resulted in gear designs to reduce the incidence of a number of species, e.g., halibut in trawl fisheries, cod in flatfish fisheries, and juvenile pollock in pollock fisheries. Prototypes have been built and tested under experimental conditions aboard chartered fishing vessels under the direction of AFSC scientists. Successful designs are then tested under commercial fishing conditions using exempted fishing permits in collaboration with Groundfish Forum staff and AFSC scientists. The cooperative research funding for the AFSC in FY2001 was targeted at funding a vessel charter and fuel to conduct the initial

experimental trials of a new design of fish excluders for Alaska's trawl fishery.

Bottom Trawl Effects Research

In another area of gear research, AFSC scientists have been studying the impact of bottom trawl fishing on the Bering Sea seafloor for the past 4 years in cooperation with commercial trawlers and more recently with Groundfish Forum staff. U.S. Navy scientists are also participating in this project. The work includes conducting controlled trawling over selected stations within long established trawl closure areas located in the eastern portion of the Bering Sea. The invertebrate catches from the trawl tow are enumerated by species. Side-scan traces of the trawl path are collected, the exact position of the tow is recorded, and bottom infauna samples are collected. The study area will be sub-sampled in future years to document the long-term recovery of the habitat in addition to the short-term trawling effects.

East Coast Ecological Studies. Both the Cooperative Shark Program and the Highly Migratory Species Tagging Program have been ongoing efforts on the East Coast that collect data on the ecology of the species.

The **Cooperative Shark Program** is carried out under the Northeast Fisheries Science Center's Apex Predator Investigations which began in 1962 with the cooperation of 100 volunteers. Since that time, more than 149,000 sharks have been tagged and more than 6,000 recaptured through the efforts of the now 6,500-strong volunteer network comprised of mostly rod-and-reel recreational anglers. The tagging program provides useful information on shark movements, migration, age and growth, mortality, and behavior for these far-ranging species.

Highly Migratory Species Tagging Programs

NMFS' Highly Migratory Species (HMS) management program has undertaken several tagging programs in cooperation with State level and academic researchers that have involved the cooperation of recreational and commercial fishermen. In addition to the conventional "spaghetti" tag programs for large pelagic fishes (operated out of the NE and SE Science Centers), the HMS program has incorporated state-of-the-art tagging technologies. These technologies include acoustical tags to track tunas caught by hook-and-line to investigate post-release mortality; archival tags to provide detailed information on bluefin tuna movements between initial release and recapture; satellite pop-up tags to assess migratory patterns of HMS over predetermined time periods that are not dependent on recapture; and, most recently, pop-up archival tags to help discern short-term and long-range movements of bluefin tuna, spawning site fidelity, and ocean wide stock mixing potential. Such ecosystem level tagging research is important for improving current HMS stock assessments and formulating international management programs to rebuild overfished stocks. The cooperation and involvement of recreational vessels, charter boats and commercial seine and harpoon boats have greatly facilitated the expansion of tagging research.

Lessons Learned and Challenges for the Future

While many examples of successful cooperative research projects exist, not all efforts have succeeded in quelling the tension created by NMFS' dual scientific and regulatory roles. The burdens of regulatory requirements can put a strain on even the best planned cooperative efforts. One of the areas we are working on concerns the rules and regulations governing "exempted or experimental fishing permitting" and "scientific research." We are reviewing our regulations and policies to ensure that we have in place the most comprehensive, consistent, and yet streamlined procedures for undertaking this kind of cooperative research

and data collection.

We are also working to expand the opportunities in cooperative and collaborative research by sharing the successes reached in areas such as the Northeast and Alaska and using them as pilot programs. We plan to continue building upon these efforts in the future.

We are working to improve the coordination of regional cooperative research programs. The communication of lessons learned, and the development of scientifically valid protocols are areas that we are working to enhance.

Planning efforts are underway on both Coasts to develop strategic plans for both short term projects and long-range programs that involve constituents in the design and implementation of research surveys, and various types of gear development and conservation engineering efforts.

In addition, support is required across the country for the participation of NMFS scientists in the development of surveys for data collection on important species, as well as in the expansion, review, and refinement of programs in collaboration with stakeholders. We are working to secure the necessary resources to support these efforts.

NMFS remains committed to cooperative research programs - not just for the valuable data and information that are obtained--but, perhaps most importantly, for the opportunity provided through this program for increased dialogue and understanding between scientists and the fishing community.

Mr. Chairman, this concludes my testimony. Again, thank you for the opportunity to be here today. I look forward to answering any questions you or other members of the Subcommittee may have.

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